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Jin Soo Lee

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EXAMINER

COLAN, GIOVANNA B

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/673,281	Applicant(s) LEE ET AL.	
	Examiner GIOVANNA COLAN	Art Unit 2162	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 June 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5-12 and 37-67 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-12, 37-67 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is issued in response to the Amendment filed on 06/02/2008.
2. Claim 44 was amended. Claims 4, and 13 – 36 were canceled. Claims 65 – 67 were added.
3. Claims 1 –3, 5 – 12, and 37 – 67 are pending in this application.
4. Applicant's arguments with respect to claims 1 –3, 5 – 12, and 37 – 67 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
6. Claim 51 – 53 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
7. Claim 51 depends on claim 40. Because of the recitation of "The system of..." in line 1, it is believed claim 5 was intended to depend on claim 40 and has been treated as such for the remainder of this Office Action.

Claim Rejections - 35 USC § 101

8. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

9. Claims 37 – 58, and 63 – 66 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 37 is not statutory because the claims merely recite computing steps without producing any concrete, useful result and tangible result and/or being limited to a practical application within the technological arts. Claim 37 recites “obtaining a data structure...” and further “searching...” which do not result in a physical transformation outside the computer for which a practical application is either disclosed in the specification or would have been known to a skilled artisan.

That is, it must produce a “useful, concrete and tangible result.” *State Street*, 149 F.3d at 1373-74, 47 USPQ2d at 1601-02. The purpose of this requirement is to limit patent protection to inventions that possess a certain level of “real world” value, as opposed to subject matter that represents nothing more than an idea or concept, or is simply a starting point for future investigation or research (*Brenner v. Manson*, 383 U.S. 519, 528-36, 148 USPQ 689, 693-96 (1966); *In re Fisher*, 421 F.3d 1365, 76 USPQ2d 1225 (Fed. Cir. 2005); *In re Ziegler*, 992 F.2d 1197, 1200-03, 26 USPQ2d 1600, 1603-06 (Fed. Cir. 1993)).

Applicant should duly note that for a claim to be statutory, a claimed computer-related process must either: (A) result in a physical transformation outside the computer for which a practical application is either disclosed in the specification or

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would have been known to a skilled artisan, or (B) be limited to a practical application with useful, concrete and tangible result.

Claim 48 is directed to "software per se". The claimed invention is addressed to a "system" that can be interpreted as referring to lines of programming within an system, rather than referring to the system as a physical object. The claimed invention is also addressed to "storage device", and "processor" that is not a hardware system/apparatus but is software (Particularly, the specification does not clearly define storage device and processor as physical objects). Accordingly, the claim becomes nothing more than sets of software instructions which are "software per se".

Any claim not specifically addressed, above, is being rejected as incorporating the deficiencies of a claim upon which it depends.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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11. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

12. Claims 1 – 3, 5, 18, 20, 29 – 31, 37 – 39, 43, 48 – 50, 54, and 59 – 67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang et al. (Wang hereinafter) (US Patent No. 5,802,361, filed: September 30, 1994) in view Gideon David Cohen (Cohen hereinafter) (US 6,067,539, filed: May 2, 1998).

Regarding Claim 1, Wang discloses a method of searching or browsing multimedia data comprising:

(a) receiving reference multimedia data with a data structure (Fig. 2A, item 201, Col. 8, lines 7 – 17, Wang) including features of said reference multimedia data (Col. 8, lines 23 – 28, Wang) and weight information of said features.

(b) searching for said reference multimedia data using the features and the weight information (Col. 8 and 18, lines 40 – 42 and 54 – 57; respectively, Wang);

(c) receiving user feedback on a relevance of resultant multimedia data found in (b) (Col. 8 and 9, lines 62 – 63 and 5 – 6, “any user supplied ranking of the image attribute”; respectively, Wang);

(d) measuring a similarity of the reference multimedia data to the resultant multimedia data (Col. 13, lines 18 – 20 and 29 – 31, Wang¹) and calculating a new weight information of said features using the measured value (Col. 18, lines 51 – 54, Wang²); and

(e) updating the weight information of said features in said data structure of the reference multimedia data using the new weight information (Col. 26, lines 21 – 28, “for each image is reweighted with the new ranking value”, Wang).

However, Wang does not expressly disclose: reliability of weight information. On the other hand, Cohen discloses: reliability of weight information (Col. 9, lines 17 – 25, Cohen). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the Cohen’s teachings with respect to reliability of weight information to the system of Wang. Skilled artisan would have been motivated to do so, as suggested by Cohen (Col. 1, lines 60 – 67, Cohen), to rank retrieved information on a topic of interest, and for determining the relevancy of sources of information for the topic of interest, which would rank both the retrieved information and these sources according to the topic of interest, and which would incorporate user

¹ Wherein the step of finding the luminance difference corresponds to the step of measuring a similarity as claimed.

² Wherein the step of assigning a numerical ranking value corresponds to the step of calculating a new weight information as claimed.

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feedback into the ranking functions, thereby increasing the efficiency of information search and retrieval.

Regarding Claim 2, the combination of Wang in view of Cohen (Wang/Cohen hereinafter) discloses a method, wherein in (c), increasing weights of features which would increase a similarity between the reference multimedia data and the resultant multimedia data if the user feedback is a positive relevance information (Col. 20 and 25, lines 10 – 13 and 64 – 67; respectively, Wang; and Col. 9, lines 17 – 25, Cohen).

Regarding Claim 3, Wang/ Cohen discloses a method, wherein in (c), increasing weights of features which would increase a dissimilarity between the reference multimedia data and the resultant multimedia data if the user feedback is a negative relevance information (Col. 26, lines 5 – 7, Wang; and Col. 9, lines 17 – 25, Cohen).

Regarding Claim 5, Wang/ Cohen discloses a method, wherein a reliability of a weight assigned to one of said features is proportional to the amount of training by user feedback (Col. 18, lines 51 – 54, Wang; and Col. 9, lines 17 – 25, Cohen).

Regarding Claim 18, Wang/Cohen discloses a data structure embodied in a computer-readable medium for a multimedia data searching or browsing system comprising:

a multimedia data (Fig. 2a, item 201, Col. 8, lines 10 – 15, Wang);

a variable information representing features of the multimedia data (Col. 8, lines 7 – 8, visual attributes, Wang); and

reliability information representing a reliability of the variable information (Col. 8, lines 54 – 60, “analyzes the side information files to identify those images in the image database that are most similar to the input image attribute”, Wang; and Col. 9, lines 17 – 25, Cohen).

Regarding Claim 20, Wang/Cohen discloses a data structure, wherein the reliability information includes information on the number of variable information updates by a user (Col. 8, lines 62 – 64, Wang; and Col. 9, lines 17 – 25, Cohen).

Regarding Claim 29, 37, and 48, Wang/Cohen discloses a system of searching multimedia information, comprising:

a storage device which stores a data structure (Col. 7, lines 13 – 18, Wang) having:

(a) feature information corresponding to at least one image feature (Col. 8, lines 23 – 28, Wang),

(b) weight information indicative of an importance of the image feature (Col. 12, lines 62 – 66, “different parameters weighted to reflect their significance to face identification”, Wang), and

(c) reliability information indicative of a reliability of the weight information (Col. 13, lines 18 – 20 and 29 – 31, Wang; and Col. 9, lines 17 – 25, Cohen); and

a processor which searches said multimedia information based on the data structure (Col. 7, lines 9 – 13, Wang).

Regarding Claim 30, 38, and 49, Wang/Cohen discloses a system, wherein the reliability information provides an indication of the reliability of the weight information based on user feedback (Col. 12, lines 62 – 66, “different parameters weighted to reflect their significance to face identification”, Wang; and Col. 9, lines 17 – 25, Cohen).

Regarding Claim 31, 39, and 50, Wang/Cohen discloses a system, wherein the reliability information includes update information corresponding to the weight information (Col. 26, lines 21 – 28, “for each image is reweighted with the new ranking value”, Wang; and Col. 9, lines 17 – 25, Cohen).

Regarding Claims 43, and 54, Wang/Cohen discloses a system, wherein the update information provides an indication of how frequently the weight information has been updated (Col. 7, lines 35 – 44, Cohen).

Regarding Claim 59, Wang/Cohen discloses a method performed by a computing device, comprising:

receiving an image (Fig. 2A, item 201, Col. 8, lines 7 – 17, Wang);

extracting characteristic attributes from the image (Col. 8, lines 25 – 28, Wang);

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ranking the characteristic attributes of the image (Col. 8 and 9, lines 62 – 63 and 5 – 6, “any user supplied ranking of the image attribute”; respectively, Wang);

determining reliability of extracted characteristic attributes of the image (Col. 9, lines 17 – 25, Cohen); and

searching a database of images using the extracted characteristic attributes, the ranking of the extracted characteristic attributes, and the determined reliability of the extracted characteristic attributes (Col. 8 and 18, lines 40 – 42 and 54 – 57; respectively, Wang).

Regarding Claim 60, 62, 63, and 64, Wang/Cohen discloses a data structure, wherein the reliability information is different from the weight information (Col. 13, lines 18 – 20 and 29 – 31, Wang; and Col. 9, lines 17 – 25, Cohen).

Regarding Claim 61, Wang/Cohen discloses a data structure, wherein the reliability information is different from the variable information (Col. 8, lines 54 – 60, “analyzes the side information files to identify those images in the image database that are most similar to the input image attribute”; wherein the input image attribute corresponds to the variable information as claimed, Wang; and Col. 9, lines 17 – 25, Cohen).

Regarding Claim 65, Wang/Cohen discloses a method, further comprising:
outputting results of the search on a terminal screen (Fig. 1, item 103, Wang).

Regarding Claims 66, Wang/Cohen discloses a system, further comprising:
a screen to output results of the search performed by the processor (Fig. 1, item 103, Wang).

Regarding Claims 67, Wang/Cohen discloses a method, further comprising:
outputting results of the search on a terminal screen (Fig. 1, item 103, Wang).

13. Claims 6 – 11, 40 – 45, 47, 51 – 53, 55 – 56, and 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang et al. (Wang hereinafter) (US Patent No. 5,802,361, filed: September 30, 1994), in view of Gideon David Cohen (Cohen hereinafter) (US 6,067,539, filed: May 2, 1998), and further in view of Kinra et al. (Kinra hereinafter) (US Patent No. 5,731,991, filed: May 3, 1996).

Regarding Claim 6, Wang/Cohen discloses all the limitations as disclosed above including data structure of the reference multimedia data. However, Wang/Cohen does not expressly disclose authority information. On the other hand, Kinra discloses authority information which limits an update of the weight information by a user feedback (Col. 6, lines 49 – 55 and 62 – 63, Kinra). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the Kinra's teachings to the system of Wang/Cohen. Skilled artisan would have been motivated to do so, as suggested by Kinra (Col. 1, lines 50 – 54 and 66 – 67, Kinra), to provide

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expert software evaluation, and to allow a user to emphasize which criteria in various alternate software products are most important to the user.

Regarding Claim 7, the combination of Wang in view of Cohen and further in view of Kinra (Wang/Cohen/Kinra hereinafter) discloses a method, wherein the authority information includes a plurality of authority levels, wherein each authority level has degree values affecting the degree of weight information update in (e) (Col. 9, lines 17 – 25, Cohen; and Col. 2, lines 24 – 27, Kinra).

Regarding Claim 8, Wang/Cohen/Kinra discloses a method, wherein a higher reliability is given to user feedback by a user with a high authority level (Col. 9, lines 17 – 25, Cohen; and Col. 6, lines 53 – 59, Kinra).

Regarding Claim 9, Wang/Cohen/Kinra discloses a method, wherein in (e), updating the weight information of said features in said data structure of the reference multimedia data depending upon the reliability information and the authority information (Col. 9, lines 17 – 25, Cohen; and Col. 6, lines 57 – 59, Kinra).

Regarding Claim 10, Wang/Cohen/Kinra discloses a method, wherein the data structure of the reference multimedia data further comprises authority information which

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limits an update of the weight information by a user feedback (Col. 9, lines 17 – 25, Cohen; and Col. 6, lines 59 – 63, Kinra).

Regarding Claim 11, Wang/Cohen/Kinra discloses a method, wherein the authority information includes a plurality of authority levels, wherein each authority level has degree values affecting the degree of weight information update in (e) (Col. 9, lines 17 – 25, Cohen; and Col. 6, lines 62 – 63, Kinra).

Regarding Claims 40, and 51, Wang/Cohen/Kinra discloses a system, wherein the update information includes:

a number of times the weight information has been updated by a user (Col. 6, lines 55 – 59, Kinra); and

authority information corresponding to the user (Col. 7, lines 35 – 44, Cohen; and Col. 2, lines 24 – 27, Kinra).

Regarding Claims 41, and 52, Wang/Cohen/Kinra discloses a system, wherein the authority information includes an authority level of the user (Col. 2, lines 24 – 27, Kinra).

Regarding Claims 42, and 53, Wang/Cohen/Kinra discloses a system, wherein the authority level is based on an amount of experience of the user (Col. 6, lines 53 – 55, Kinra).

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Regarding Claims 44, and 55, Wang/Cohen/Kinra discloses a system, wherein the update information provides an indication of how frequently the weight information has been updated by one or more users having at least a minimum authority level (Col. 6 and 10, lines 59 – 63 and 49 – 54; respectively, Kinra³).

Regarding Claims 45, and 56, Wang/Cohen/Kinra discloses a system, further comprising:

an input unit which receives authority information corresponding to a user (Col. 6, lines 53 – 55, Modifier, Kinra); and

a comparator which compares the authority information to predetermined information (Col. 6, lines 53 – 55, Modifier, Kinra), wherein the processor updates the weight information using user feedback based on a result output from the comparator (Col. 2, lines 24 – 27, Kinra).

Regarding Claims 47, and 58, Wang/Cohen/Kinra discloses a system, wherein the comparator compares an authority level of the user to a predetermined authority level (Col. 6, lines 53 – 55, Modifier, Kinra), and wherein the processor updates the weight information only if the authority level of the user is determined to be equal to or higher than the predetermined authority level based on an output from the comparator (Col. 2, lines 24 – 27, Kinra).

³ Wherein the step of double clicking corresponds to the step of providing an indication as claimed.

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14. Claims 12, 46, and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang et al. (Wang hereinafter) (US Patent No. 5,802,361, filed: September 30, 1994), in view of Gideon David Cohen (Cohen hereinafter) (US 6,067,539, filed: May 2, 1998), in view of Kinra et al. (Kinra hereinafter) (US Patent No. 5,731,991, filed: May 3, 1996), and further in view of Rose et al. (Rose hereinafter) (US Patent No. 5,724,567, filed: April 25, 1994).

Regarding Claim 12, Wang/Cohen/Kinra discloses all the limitations as disclosed above. However, Wang/Cohen/Kinra does not expressly disclose a password. On the other hand, Rose discloses: receiving a password from a user to determine an authority level of the user (Col. 4, lines 30 – 34, Rose). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the Rose's teachings to the system of Wang/Cohen/Kinra. Skilled artisan would have been motivated to do so, as suggested by Rose (Col. 3, lines 60 – 63, Rose), to identify the user as having authorized access to the system.

Regarding Claim 46, and 57, Wang/Cohen/Kinra/Rose discloses a system, wherein the predetermined information includes a password (Col. 4, lines 30 – 34, Rose).

Response to Arguments

15. Applicant's arguments with respect to 101 rejections of claim 37 and 48 have been fully considered but they are not persuasive. Claim 37 does not produce a useful, concrete, and tangible results. Claim 37 recites "obtaining a data structure..." and further "searching..." which do not result in a physical transformation outside the computer for which a practical application is either disclosed in the specification or would have been known to a skilled artisan. Claim 48 is also rejected under U.S.C. 101 (see 101 rejections included in this Office Action above).

Points Of Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GIOVANNA COLAN whose telephone number is (571)272-2752. The examiner can normally be reached on 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached on (571) 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Giovanna Colan
Examiner
Art Unit 2162
August 25, 2008

***/Jean M Corrielus/
Primary Examiner, Art Unit 2162***